National Institute of Environmental Health Sciences

Differential adaptive capacity to extreme heat: A Phoenix, Arizona, case study

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Abstract:

Climate change is projected to increase the number of days producing excessive heat across the southwestern United States, increasing population exposure to extreme heat events. Extreme heat is currently the main cause of weather-related mortality in the United States, where the negative health effects of extreme heat are disproportionately distributed among geographic regions and demographic groups. To more effectively identify vulnerability to extreme heat, complementary local-level studies of adaptive capacity within a population are needed to augment census-based demographic data and downscaled weather and climate models. This pilot study, conducted in August 2009 in Phoenix, Arizona, reports responses from 359 households in three U. S. Census block groups identified as heat-vulnerable based on heat distress calls, decedent records, and demographic characteristics. This study sought to understand social vulnerability to extreme heat at the local level as a complex phenomenon with explicit characterization of coping and adaptive capacity among urban residents.

Source: http://dx.doi.org/10.1175/wcas-d-11-00010.1

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Health Professional, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Desert, Urban

Geographic Location: ☑

resource focuses on specific location

United States

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Injury, Other Health Impact

Other Health Impact: heat related mortality

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Population of Concern: A focus of content

Population of Concern: ☑

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

Resource Type: ☑

format or standard characteristic of resource

Research Article

Resilience: ☑

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content